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ABSTRACT

Because of its lower cost, cultural integration into the community, non-selective admission requirements, and vocational/technical programs, the two-year college has been seen as a way of enrolling students historically underrepresented in higher education. In comparison to his four-year college counterpart, the two-year college student is from a lower-income family, has parents with less schooling, and ranks lower on scales of academic aptitude. One function of two-year colleges is the rechanneling of student aspirations in line with student abilities and labor market demands. This is accomplished through a persuasive guidance approach which reorients students, most often resulting in the redefinition (cooling-out) of transfer students as terminal, vocational education students. Even if education as a certifying agent were abandoned in favor of skill training in business and industry, the author contends that the same inequalities which currently prevent equal access to colleges would prevent equality of access to training programs in the private sector. Thus, despite the unsavory implications of "people processing," the idea of a better fit between educational and occupational spheres is attractive and desirable. (NHM)

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# INEQUALITY OF OUTCOMES:

# TWO-YEAR EDUCATIONS

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ABSTRACT

The development of two-year colleges as a major feature of American education is investigated, with emphasis on attendant inequalities in inputs, institutional role processes, and outcomes. Input characteristics of students are seen to support contentions of inequality: a profile of the two-year student vis-a-vis the four-year student is presented which incorporates recent empirical findings. The institutional role of the two-year college is considered in relation to the cooling-out process. Outcomes are examined from the perspective of inequalities resulting from vocational training, career education, and articulation with the occupational sphere.

## INEQUALITY OF OUTCOMES: TWO-YEAR EDUCATIONS

The desire of Americans to move from one social class to another often manifests itself in an attempt to engage in the same activities as those of a higher class, and this includes college attendance.[1] In this respect the two-year college is perceived as a facilitator in surmounting economic and attitudinal barriers to college attendance, largely through its lower cost and its cultural integration into the community.[2] Its non-selective admission requirements and the variety of programs leading directly to employment are characteristics routinely praised by educators and legislators alike, who see this "non-traditional" approach to schooling as a way of enrolling students historically underrepresented in higher education: Census Bureau reports, which show two-year institutions as accounting for most of the increase in college enrollments in recent years, are proudly displayed.

The inequalities accompanying two-year educations have occasioned less attention, despite inequality in regard to <u>inputs</u>, <u>institutional role processes</u>, and <u>outcomes</u>.

### Input Characteristics: Two-Year College Students

The two-year college - variously referred to as a "halfway house between marriage, job, or family", a "second chance emporium rigged in the customers' favor", and the "glittering mid-way where the rubes are kept amused until it's time to go home"[3] - is usually analyzed with the four-year college as a reference point. Likewise, the two-year college student is most frequently characterized in comparison to four-year students. The two-year student is from a lower-income family than the four-year student,[4] and his parents typically have less schooling.[5] On measures of academic ability and aptitude, including intelligence - measured and self-appraised - two-year students fall below their four-year age mates.[6]

Educational career variables present a rather convincing sequence of unequal characteristics, with causality implied: from making plans for college to dropping out, two-year students occupy a less favorable status. That is to say two-year students are less likely to have even discussed college plans with anyone,[7] and if they do, they are not as likely to have been encouraged to attend a four-year college,[8] and not as likely to have attendance taken for granted.[9] If they do get to college, they sometimes encounter peer group jealousy as well as parental disapproval.[10] Being less likely to believe in schooling for its own sake[11] (a belief which might be useful to someone motivating himself to undergo two to four years of schooling) and less likely to believe such formal education will result in personally beneficial outcomes,[12] and having lower educational[13] and occupational goal levels anyway,[14] the two-year student orients himself to a career which will have both an immediate payoff and a close relationship between training and subsequent employment.[15] Less likely to decide to go to college - then more likely to defer enrollment[16] - he is more likely to be part-time once he gets there, mostly because he is also employed part-time.[17] For the same economic reasons for these part-time statuses, he is more likely to live at home, with the negative influence of family and friends, and the consequently lower involvement in educational activities not directly related to training per se.[18] The effect of these variables tends to maximize the ratio of potential to actual enrollment levels.

## The Cooling-Out Process

A vital process of two-year schools, and one which relates as much to terminal vocational training as it does to such diffuse purposes as conversion of students into "responsible, taxpaying citizens", is the cooling-out process. This task, which involves a "rechanneling of student aspirations in line with their abilities,

thus avoiding conflict created by disappointment and feelings of failure",[19] is accomplished through a persuasive guidance approach which results in "reorientation" of students rather than dismissal. This guidance effort, involving mandatory courses in career planning and self-evaluation, has as its most general result the redefinition of transfer students as terminal students.[20]

> A more optimistic assessment of the cooling-out process is that
>
> . . . after two years in a course they have chosen, students can go out prepared for activity that satisfies them instead of being branded failures. So the broadest possible opportunity is provided for the largest number to make an honest try at further education with some possibility of success and with no right to a desired goal completely barred to them.[21]

Which is to say they cross the finish line before they grow tired of the race.

As the proportion of students beginning their college educations with enrollment in two-year colleges rapidly increases, the future of American higher education as an egalitarian system will depend upon the ability of these two-year colleges to provide the kinds of schooling which facilitates entry into middle class occupations. Located at the bottom of the educational tracking system in overall class origins, academic ability, and occupational destinations of students, two-year colleges are themselves characterized by a tracking system which manifests itself in: 1) the existence of terminal (vocational-technical) curricula and transfer ("college-parallel") curricula, 2) the movement of students between terminal and transfer curricula, and 3) the varying number of years of schooling completed by entrants.[22]

Rather than increasing the production of four-year degrees by increasing opportunities for attainment of such degrees by low status, high ability students, two-year colleges channel these students away from four-year colleges and into

technical occupations. A current analysis of the nine U.S. Census divisions results in the conclusion that the Pacific division - which includes the largest community college system in the nation - has the second lowest proportion of the age cohort completing four years of college.[23] After the student enters the two-year college, additional channeling occurs when, either through initial choice or later "reorientation", two-thirds of the students enroll in terminal curricula. The structured lowering of aspirations and subsequent attainment of over half these entrants indicating four-year aspirations has been identified by Burton Clark as the "cooling-out" function of two-year colleges.[24]

This cooling-out function has important consequences for higher education and stratification. Open admissions policies, which enable low ability students to enter two-year colleges, would seem to make cooling-out an even more salient feature of American education. While the low ability, affluent student may attend a two-year college because "it is what one does when one completes high school",[25] the high ability, non-affluent student may attend because it is what one does to attempt to improve one's position in life. Inasmuch as high ability, low status students, followed by low ability, high status students, are the likeliest entrants at two-year community colleges,[26] the educational careers of both groups of students should eventually be investigated.

Although Clark did not specify the class origins of cooled-out students, Jerome Karabel has observed that the cooling-out function has always been assumed to apply to the upwardly-mobile working class.[27] However, Christopher Jencks has speculated that cooling out of low ability <u>middle</u> class students may be the really significant aspect of this process, a speculation which could be empirically explored by a comparison of middle and working class students in regard to their changes in curriculum enrollment within the two-year college. Though such an hypothesis is subject to investigation, existing research cannot settle the matter.

But whether higher or lower status students are affected, it is important to consider the process by which so many two-year college entrants redefine their aspirations for upward mobility.

The cooling out of entrants has as a major effect the filling of lower status occupations by those who initially over-select higher status occupations. The appearance of an open system of competition helps low-status job incumbents accept their final place.[28] Two year colleges must take students with transfer aspirations and transform them into terminal students in ways psychologically acceptable to them.[29]

A major problem of American society is the inconsistency between the encouragement of achievement and the realities of limited opportunity.[30] Elaborate ideologies of equal access, such as those encouraged by "democracy's college", are required. Although blocked opportunity results from high standards once admission is granted, the individual perception of opportunity followed by personal failure permits the ideal of equal access to mobility channels to persist. And the availability of alternative opportunities, whether they be vocational programs for original transfer students, or some form of semi-skilled employment for vocational dropouts, may act to alleviate the stress attendant in personal failure, thereby mitigating problems resulting from unfulfilled expectations.

## Inequality of Outcomes: Vocational Training, Career Education, and Employment

In any appraisal of benefits of schooling to those who are most unequal, one should, in a basic sense, be cognizant that the poor are low on every dimension - education, occupation, income, housing, services, power. The problem is to discover what combination of these will help them gain the others.

Some say it is education that will be most useful, that while guaranteed income, for example, merely treats the symptoms, education provides the necessary

skills and competencies to function effectively in the society. If, as a mounting sociological analysis indicates, pre-existing differences among those to be schooled are more important than effects of schooling, with the consequence that schooling merely extends earlier inequalities,[31] perhaps the loudest answer to questions about inequality should be that schooling can't make much difference. Schools in a stratified society may more reflect the social order than affect it.

Given this marginal status of schooling, what can be done?

Equality of educational opportunity might mean giving everyone access to the means of attaining a college degree; equality of educational outcome might mean giving everyone a college degree. But universal college degrees are not going to reduce occupational or economic inequality. This would just transfer the screening mechanism from the educational sphere to the employment sphere. Giving everyone access to a college degree might help reduce inequality, but only if equality of access were defined to preclude educational tracking of the two-year/four-year sort.

As the profile of the two-year student shows, those who begin unequal end up unequally. However, it has been recently reported that those admitted under the new open door policy at one community college[32] (which waived scholastic entry requirements) showed no higher dropout rate than the "fully qualified". In other research, surprisingly little difference was found in attrition rates between native four-year students and junior college transfer four-year students.[33] Such findings are too recent for considered assessment or replication, but even if such a trend were indicated, and the attrition rate for those low on cognitive scholastic entry variables equalled that of "fully qualified" two-year students, the attrition rate would continue to be too high for both groups, owing to 1) noncognitive differences, and 2) attendance at a two-year rather than a four-year institution, which itself appears to increase the likelihood of dropping

out.[34] And even if the attrition rate of two-year transfer students equalled that of native four-year students, a maximum of only thirty percent ever transfer anyway, despite initial enrollment of two-thirds of a cohort in transfer curricula.

This large discrepancy between those who aspire to transfer and those who eventually transfer implies outcomes which are not immediately obvious. A study of terminal two-year students in transfer and vocational programs showed that, in terms of self-reported work satisfaction, while thirty-five percent of vocational majors said "very satisfied", only seven percent of transfer majors who did not transfer said so, and while four percent of vocational majors said they were dissatisfied with their work, fifty-three percent of transfer students who did not transfer said this.[35] The dissatisfaction attending failure in a transfer program may result in widespread dissatisfaction, unless those who fail are successfully cooled out. With the apparent lack of effective ways of cooling out terminal transfer two-year students with no vocational skill, guaranteed admission to the last two years of college could prevent such short-term dissatisfaction.

The typical education of most two-year students will likely continue to consist of vocational training, which, unlike most four-year educations, can result in immediately marketable skills, but, also unlike four-year schooling, is so specific that job obsolescence can ultimately detract from the value of the training. Even if the two-year training program proved of lasting value to the student, his occupational status may be determined relatively early in life, resulting in occupational rigidity.

In a society where everyone has equal access to schooling, how is access to employment opportunities determined? Just as it always has been: those with more schooling get better jobs than those with less. Educational inflation operates in a way to make people run faster so that they can stand still. Inequality is not lessened by adding a year to the mean level of schooling.[36] But even if education

as a credentializing agent were abandoned in favor of skill training in business and industry, there is no reason to believe that the same inequalities which currently prevent equal access to colleges (i.e., family background, cognitive and affective traits), would not prevent equality of access to training programs in the private sector.[37]

Economists estimate that although the increase in relative supply of highly educated persons in the U.S. has reduced personal rates of return on education, a sizeable differential will remain between those attaining varying levels of schooling.[38]

In the absence of equality of educational opportunity or income, one way of reducing inequality may be to reward each successively higher level of educational attainment with a lower rate of return than the preceding level, thereby minimizing income disparities. This monotonically downward slope in internal rate of return, as proposed by some economists for additional educational attainment increments,[39] would provide a test for the functionalist fear of loss of talent due to insufficient income differentials.

In a nation known for its unlimited opportunity, how can it be that so many with the original aspiration to become an engineer end up a technician? The available functionalist stratification ideology would answer that people with initially unequal abilities and subsequently unequal training must be rewarded unequally. But this is more than saying not every Indian is capable of being a chief. It is also to say only so many chiefs are needed. If more were suddenly needed, as was the case with technicians, access to appropriate institutions would be opened up, as it has been to two-year schooling. Two-year colleges, with their vocational emphasis, have been responsive to changing manpower requirements.

The provision of various alternatives to being a chief softens the realization that one will never become one, as does the apparent equality of access and the

popular belief that Indians are as good as chiefs anyway. So the lower status occupational slots are filled by those lower in the educational tracking system. If the student is from an unskilled or unemployed family background, he will experience upward mobility. Otherwise he will simply maintain himself, but in the presence of structural mobility, with its more complex work and its general prosperity.

The two-year college, through its "cooling out" counseling function, will continue to operate as a channeling mechanism by which student aspirations are adjusted to conform with labor market demands. In regard to its role as a screening agency, the two-year college may dispense with this function just as the high school, with its "social passing" policy, abandoned its screening function. The trend may be toward recruiting and accepting an entire age cohort, flunking almost none of them out, and encouraging all to go on to four-year institutions, or at least to upper-division colleges, the transfer institutions designed specifically for community college students.[40] The educational tracking accomplished by two-year institutions would continue in upper-division institutions, which would take the pressure off four-year colleges from ever having to accept two-year students.

In a way, the idea of a better fit between the educational and occupational spheres is attractive, despite the implication of "channeling", "programming", or "people-processing". Career education[41] - the attempt to apprise students of occupational slots - if it were to result in a better fit, might be more humane than, say, training half a million too many secondary teachers, who stand little chance of practicing their profession: mental health implications of underemployment must still be investigated. Career education might also be better than ending up with a shortage of linotypists, for instance. But even the experts are puzzled about projecting labor market demands.

A development document of the State University of New York was directly concerned with the issue of manpower planning in its consideration of the question "should institutions respond to the stimuli of demands from business, industry, and government or should institutions help business and government to determine their needs?" Most manpower estimates assume first that the number of positions will be filled, and second that manpower demand is the independent variable and education the dependent variable. Such assumptions ignore processes by which students choose their educational and occupational careers, an area in which analytical projection models are just being developed. (What effect, for instance, might information about the availability of higher education facilities in specific fields have on student choice?)

Prediction, it is concluded, is difficult, but, more important, in the absence of employees for specific slots, manpower needs will be reduced by purposive changes and more efficient utilization, which will affect shortages in other occupations, which will affect student choice, which will affect need, and so on, into the dynamics of systems of which there is little understanding. Considerations such as this make the prospect of channeling people appear less attractive. The implications of this conclusion for vocational training programs resulting in occupational rigidity are chilling.[43]

Despite the poor predictive power of labor market analysis, in 1971, two of every three young Americans left school or college without a trade or skill that would permit them to compete effectively in the labor market.[44] These include dropouts at all levels and graduates from general secondary curricula. It is predicted that by 1975 there will be a total of 4.5 million unskilled jobs in the economy, but a projected 3.5 million unskilled people entering the labor force. Average unemployment rates in the 18 to 24 age group exceed twenty-five percent, with rates approaching fifty percent for inner city ghettoes or Southwestern barrios.

Career education, raised to the status of a "movement" by former U.S. Commissioner of Education Sidney P. Marland, was referred to by him as the Office of Education's most pressing priority. Such education appears to be primary and secondary school preparation for subsequent vocational training (or professional training). In this process, tracking becomes so pronounced as to begin cooling people out earlier than in the two-year college. The possibility for individual mobility - which is kept open a year longer each time final occupational choices are deferred - will decrease.

Speculation about the ultimate effects of vocational career education is intriguing: although radical thinkers such as Herbert Gintis[45] claim American education socializes students for appropriate work behaviors, it is essential that the poor gain full access to education. As Frank Riessman says,

> Everyone who is concerned with playing a major role in changing society, understanding the world, and functioning in an advanced occupation has long since discovered he needs systematic, disciplined education. . . . There is a real danger that poor people may be persuaded that they are getting a union card via relevant, work-oriented courses and that they don't need any of that high falutin' college stuff.[46]

Although underemployed and consequently dissatisfied workers are more likely agents of social change, it may be that their relative prosperity will satisfy them in a way continued poverty would not. Or maybe, as studies on vocational and technical students indicate, radical activity does not occur to the extent it occurs among liberal arts students.[47] It seems possible, however, that increasing numbers of idle and unemployed people may constitute a force as threatening to order as underemployed workers.[48]

## Epilogue

Unlike unskilled work, which may be done efficiently by transitional employees, e.g., students, technical work must be done by those with skill training. Labor market predictions are that the demand for technicians will be increasing.

Inequalities as experienced by most people are great along dimensions of income and prestige. While the relative income of skilled labor is increasing, its prestige is not.

Prestige does not exist apart from an audience. If career education is successful, it may have - as one result - a higher reputational status for technical occupations. In relation to two-year educations, this may be the only reduction in inequality which can be anticipated.

FOOTNOTES

1 Leland L. Medsker, The Junior College: Progress and Prospects (New York: McGraw-Hill, 1960).

2 John L. Schmidt and John W.R. Rothney, "Variability of Vocational Choices of High School Students", Personnel and Guidance Journal, 34 (November, 1955), pp. 152-156.

3 Frank G. Jennings, "The Two-Year Stretch", Change, 2 (March-April, 1970), pp. 15-25.

4 Burton R. Clark, "The Cooling-Out Function in Higher Education", American Journal of Sociology, 65 (May, 1960), pp. 569-576; W.W. Cooley and S.J. Becker, "The Junior College Student", Personnel and Guidance Journal, 44 (January, 1966), pp. 464-469; A.W. Astin, J.J. Panos, and J.A. Greager, National Norms for Entering Freshmen, American Council on Education Research Reports, 2, 1 (Washington, D.C.: American Council on Education, 1967); Lyle F. Schoenfeldt, "Education after High School", Sociology of Education, 41 (Fall, 1968), pp. 350-370; K. Patricia Cross, The Junior College Student: A Research Description (Princeton: Educational Testing Service, 1968; also Cross, "The Quiet Revolution", The Research Reporter, 4, 3 (1969), pp. 1-4; Terry O'Banion, "Rules and Regulations: Philosophy and Practice", Junior College Journal, 39 (April, 1969), pp. 11-15; Brent Shea and Richard A. Rehberg, "Identification of Selection Variables Associated with Years of Schooling Achieved", paper presented at New York State Sociological Association annual meeting, 1973; United States Bureau of the Census, Current Population Reports, Series P-20, Number 231, "Undergraduate Enrollment in Two-Year and Four-Year Colleges: October 1970", (Washington, D.C.: U.S. Government Printing Office, 1972).

5 Richard A. Rehberg, Mary Conklin, and Brent Shea, Compositional Characteristics of Youth by Level of Educational Attainment: The Two-Year College Student in Comparative Perspective, Data Report, 1972; U.S. Census, 1972.

6 J.W. Reynolds, The Junior College (New York: Center for Applied Research in Education, 1965); Leland L. Medsker and J.W. Trent, The Influence of Different Types of Public Higher Educational Institutions on College Attendance from Varying Socioeconomic and Ability Levels (Berkeley: Center for Research and Development in Higher Education, 1965); Cooley and Becker, 1966; Astin, et. al., 1967; Schoenfeldt, 1968; Leland L. Medsker and Dale Tillery, Breaking the Access Barriers: A Profile of Two-Year Colleges (New York: McGraw-Hill, 1971).

7 Medsker and Tillery, 1971.

8 Aaron V. Cicourel and John I. Kitsuse, Educational Decision-Makers (Indianopolis: Bobbs-Merrill, 1963); William H. Sewell, Archibald Haller, and Alejandro Portes, "The Educational and Early Occupational Attainment Process", American Sociological Review, 34 (February, 1969), pp. 82-92; Richard A. Rehberg and Lawrence Hotchkiss, "Educational Decision-Maker: Antecedents and Consequences of Career Advice from the Guidance Counselor as a Significant Other in the Process of Social Mobility", Sociology of Education, 45 (Fall).

9 Rehberg, et. al., 1972.

10 Thomas E. O'Connell, "The New Student for the New College", National Association of College Administrators' Journal, 15 (November, 1970), pp. 11-13. Karabel reports that a personal communication with A.W. Astin indicated that much of the difference in attrition rates between two and four-year students disappears when commuting is controlled. See Jerome Karabel, "Community Colleges and Social Stratification", Harvard Educational Review, 42 (November, 1972), pp. 521-563.

11 James M. Richards, Jr. and J.C. Holland, "Factor Analysis of Student 'Explanations' of Their Choice of a College", International Journal of Educational Sciences, 1 (October, 1966), pp. 103-112; Richards and Larry A. Braskamp, Who Goes Where to Junior College?, Paper Number 20 (Iowa City, Iowa: American College Testing Program, 1967).

12 Rehberg, et. al., 1972.

13 William H. Sewell, Archie Haller, and Murray A. Strauss, "Social Status and Educational and Occupational Aspirations", American Sociological Review, 22 (February, 1957), pp. 67-73; Richard A. Rehberg and David L. Westby, "Parental Encouragement, Occupation, Education, and Family Size: Artifactual or Independent Determinants of Adolescent Educational Expectations?", Social Forces (March, 1967), pp. 362-374.

14 K. Patricia Cross, Beyond the Open Door (San Francisco: Jossey-Bass, 1971).

15 O'Banion, 1969.

16 Astin, et. al., 1967; Medsker and Tillery, 1971.

17 Reynolds, 1965; Astin, et. al., 1967; Cross, 1968; U.S. Census, 1972.

18 Arthur M. Cohen, Dateline '79: Heretical Concepts for the Community College (Beverly Hills: Glencoe Press, 1969), Charles R. Monroe, Profile of the Community College: A Handbook (San Francisco, Jossey-Bass, 1972).

19 Clark, 1960.

20 Lora S. Simon, "The Cooling-Out Function of the Junior College", Personnel and Guidance Journal, 45 (June, 1967), pp. 973-978.

21 Robert Gordon Sproul, "Many Millions More", Educational Record (April, 1958), pp. 97-103.

22 A.W. Astin, "Open Admissions: The Real Issue", Science, 173 (September 24, 1971), pp. 71-79.

23 A.J. Jaffe and W. Adams, "Two Models of Open Enrollment", in L. Wilson and O. Mills (eds.), Universal Higher Education (Washington, D.C.: American Council on Education, 1972).

24 Clark, 1960.

25 Arthur M. Cohen, "Who is Talking to Whom?", Junior College Research Review, 3 (April, 1969), pp. 2-8.

26 Schoenfeldt, 1968.

27 Karabel, 1972.

28 John H. Gagnon, "The Uses of Failure", Change, 1 (May-June, 1969), pp. 27-31.

29 Philip Selznick, "A Sociologist Views Junior College Administration", Journal of Secondary Education (January, 1961).

30 Astin, 1971.

31 Bachman, Youth in Transition: Dropping Out; Carl Bereiter, "Schools without Education", Harvard Educational Review, 42 (August, 1972), pp. 390-413; Christopher Jencks, et. al., Inequality: A Reassessment of the Effect of Family and Schooling in America (New York: Basic Books: 1972); Shea and Rehberg, 1973.

32 Norman Eagle, "Dropout Prediction at an Urban Community College Following Open Admissions", paper presented at American Educational Research Association annual meeting, 1973. Research attempts to identify "disadvantaged" students demonstrates the need for including affective measures as well as cognitive ones. See Johnnie R. Clarke and Rose Mary Ammons, "Identification and Diagnosis of Disadvantaged Students", Junior College Journal (February, 1970).

33 Ernest F. Anderson, "Comparison of Transfer and Native Student Progerss at the University of Illinois", paper presented at American Educational Research Association annual meeting, 1973.

34 A.W. Astin, College Dropouts: A National Profile (Washington, D.C.: American Council on Education, 1972).

Recent evidence shows transfer rates are steadily increasing. See Ellen Kuhns, "A Resolution to End Transfer Hurdles", Community Junior College Journal, 43 (February, 1973), pp. 36-38.

35 George W. Forgey, "Work Really Does Pay Off", Community Junior College Journal, 43 (February, 1973), p. 52.

36 William M. Birenbaum ("The More We Change, The Worse We Get", Social Policy, 2 (May-June, 1971), pp. 10-13), sees this extension of education as "insisting that refugees from the ghettoes of our cities present tokens of their worth".

37 See Peter D. Salin, "The Case for Universal Higher Education", American Association of University Professors Bulletin (Fall, 1973), pp. 324-327.

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38 Gary Becker, Human Capital: A Theoretical and Empirical Analysis with Specific Reference to Education (New York: Columbia University Press, 1964); M.S. Bowman, "The Human Investment Revolution in Economic Thought", Sociology of Education, 39, pp. 111-138. The low public rate of return to vocational schooling has been noted by Gintis (1971), who finds it surprising inasmuch as this type of training emphasizes the economically relevant contend of schooling. This low return rate might be explained by the failure of such schools to "inculcate the required non-cognitive personality traits". A more likely explanation may be that people in such programs were initially low on non-cognitive traits, which would only have been extended by additional education, even in its traditional attempt to inculcate such traits.

39 Joseph Froomkin, Aspirations, Enrollments, and Resources: The Challenge to Higher Education in the 1970's (Washington, D.C.: Department of Health, Education, and Welfare, 1970).

40 In the "upside-down curriculum", which attempts to compensate for early specialization in the two-year college, general education courses dominate the third and fourth years of college in upper-division institutions. See Kuhns, 1973.

41 Career education would include primary education, where such problems as work mode bias would be considered. Technical occupations, e.g., are portrayed less frequently and less possitively than professional work roles. See Floyd H. Jenkins, et. al., Elementary Basal Readers and Work Mode Bias, (North Texas State University. Center for Economic Education, 1973).

42 State Education Department of New York, Development Document (Albany: State University of New York, 1968).

43 The major source of occupational employment projections is the U.S. Department of Labor Bureau of Labor Statistics, Occupational Handbook (published every two years, with periodic supplemental up-dates).

44 United States Department of Health, Education, and Welfare, Annual Report of the U.S. Commissioner of Education (Washington, D.C.: U.S. Government Printing Office, 1971), Chapter I, "The Condition of Education"; Chapter IV, "No Room at the Bottom".

45 Herbert Gintis, "Education, Technology, and the Characteristics of Worker Productivity", American Economic Review, 61 (May, 1971), pp. 266-279.

46 Frank Riessman, "The Vocationalization of Higher Education: Duping the Poor", Social Policy, 2 (May-June, 1972), pp. 3-4.

47 See Brent Mack Shea, "The End of Student Activism", Sociological Symposium, 10 (Fall, 1973), pp. 20-40.

48 J.C. Davis cites the Depression in America as evidence against the interpretation that idleness and unemployment lead to revolutionary activity. See Davis, "Toward a Theory of Revolution", American Sociological Review, 27 (1962), pp. 5-19.